

AMENDMENTS TO THE CLAIMS

Claims 1-45 (Cancelled)

46. (Previously Presented) A polymer compound comprising a monomeric unit derived from acrylic ester or methacrylic ester having a polycyclic group at a side chain, wherein all hydrogen atoms on the ring of the polycyclic group are fluorinated and the polycyclic group has a transparency to light of 157 nanometer wavelength, represented by an adsorption coefficient equal to or less than $3.0 \mu\text{m}^{-1}$.

47. (Previously Presented) The polymer compound according to claim 46, wherein the polycyclic group is an adamantyl group.

48. (Cancelled)

49. (Previously Presented) The polymer compound according to claim 46, further comprising a second monomeric unit.

50. (Previously Presented) The polymer compound according to claim 49, wherein the second monomeric unit has an acid dissociable group.

51. (Previously Presented) The polymer compound according to claim 49, wherein the second monomeric group is a monomeric unit derived from acrylic ester or methacrylic ester.

52. (Currently Amended) A polymer compound comprising a monomeric unit having an alicyclic group at a side chain, wherein more than half the number of hydrogen atoms on the ring of the alicyclic group is highly fluorinated~~are substituted by fluorine atoms~~ and has transparency to light of 157 nanometer wavelength, represented by an adsorption coefficient equal to or less than $3.0 \mu\text{m}^{-1}$ and, wherein the alicyclic group has a hydrophilic group on a ring.

53. (Previously Presented) A polymer compound according to claim 52 wherein the alicyclic group is an adamantyl group.

54. (Previously Presented) A polymer compound according to claim 52 wherein the monomeric unit is derived from an acrylic ester or a methacrylic ester.

55. (Currently Amended) A polymer compound comprising a monomeric unit having an alicyclic group at a side chain, wherein more than half the number of hydrogen atoms on the ring of the alicyclic group is highly fluorinated are substituted by fluorine atoms and has transparency to light of 157 nanometer wavelength, represented by an adsorption coefficient equal to or less than $3.0 \mu\text{m}^{-1}$ and wherein the monomeric unit is a unit derived from vinyl ether.

56. (Cancelled)

57. (Currently Amended) A polymer compound comprising a monomeric unit having an alicyclic group at a side chain, wherein more than half the number of hydrogen atoms on the ring of the alicyclic group is highly fluorinated are substituted by fluorine atoms and has transparency to light of 157 nanometer wavelength, represented by an adsorption coefficient equal to or less than $3.0 \mu\text{m}^{-1}$ and wherein the alicyclic group has a hydrophilic group on a ring and said polymer further comprising a second monomeric unit, wherein the second monomeric unit has an acid insoluble group.

58. (Currently Amended) A polymer compound comprising a monomeric unit having an alicyclic group at a side chain, wherein more than half the number of hydrogen atoms on the ring of the alicyclic group is highly fluorinated are substituted by fluorine atoms and has transparency to light of 157 nanometer wavelength, represented by an adsorption coefficient equal to or less than $3.0 \mu\text{m}^{-1}$, wherein the monomeric unit is a unit derived from vinyl ether and said polymer further comprising a second monomeric unit, wherein the second monomeric unit has an acid insoluble

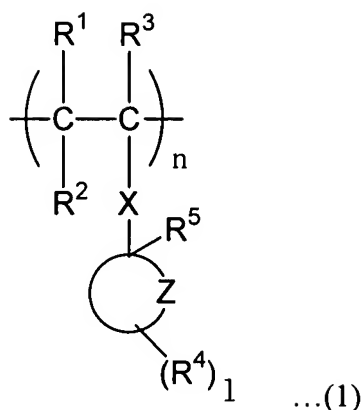
group.

59. (Cancelled)

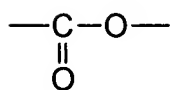
60. (Currently Amended) A polymer compound comprising a monomeric unit having an alicyclic group at a side chain, wherein more than half the number of hydrogen atoms on the ring of the alicyclic group is highly fluorinated are substituted by fluorine atoms and has transparency to light of 157 nanometer wavelength, represented by an adsorption coefficient equal to or less than $3.0 \mu\text{m}^{-1}$, wherein the alicyclic group has a hydrophilic group on a ring and said polymer further comprising a second monomeric unit wherein the second monomeric unit is a monomeric unit derived from a vinylic double bond.

61. (Currently Amended) A polymer compound comprising a monomeric unit having an alicyclic group at a side chain, wherein more than half the number of hydrogen atoms on the ring of the alicyclic group is highly fluorinated are substituted by fluorine atoms and has transparency to light of 157 nanometer wavelength, represented by an adsorption coefficient equal to or less than $3.0 \mu\text{m}^{-1}$, wherein the monomeric unit is a unit derived from vinyl ether and said polymer further comprising a second monomeric unit wherein the second monomeric unit is a monomeric unit derived from a vinylic double bond.

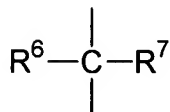
62. (Currently Amended) A polymer compound having a monomeric unit represented by general formula (1)



where n is an integer; X is an ester group of carboxylic acid,



ether group (-O-), -CH₂-O-, or an alkylidene group,



Z enclosed by a circle is ~~a highly fluorinated~~ an adamantyl group wherein more than half the number of hydrogen atoms on the adamantyl group are substituted by fluorine atoms; R¹, R², R³, R⁵, R⁶ and R⁷ are independently one selected from the group consisting of a hydrogen atom, lower alkyl group, fluorine atom, and fluorinated lower alkyl group; l is an integer of 0 to 3; and R⁴ is a hydroxyl group,

and having transparency to light of 157 nanometer wavelength represented by an adsorption coefficient equal to or less than 3.0 μm⁻¹.

63. (Previously Presented) The polymer compound according to claim 62, wherein the adamantyl group is a perfluoroadamantyl group.

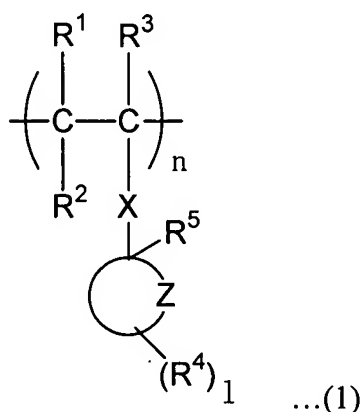
64. (Previously Presented) A resist composition comprising a polymer compound having a monomeric unit derived from acrylic ester or methacrylic ester having a polycyclic group at a side chain, wherein all hydrogen atoms on the ring of the polycyclic group are fluorinated and said

polymer compound has a transparency to light of 157 nanometer wavelength, represented by an adsorption coefficient equal to or less than $3.0 \mu\text{m}^{-1}$.

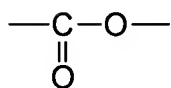
65. (Previously Presented) The resist composition according to claim 64, comprising the polymer compound as a base polymer.

66. (Previously Presented) The resist composition according to claim 64, comprising the polymer compound as a dissolution inhibitor agent.

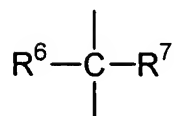
67. (Currently Amended) A resist composition comprising a polymer compound having a monomeric unit represented by general formula (1)



where n is an integer; X is an ester group of carboxylic acid,



ether group (-O-), -CH₂-O-, or an alkylidene group,



Z enclosed by a circle is ~~a highly fluorinated~~ an adamantyl group wherein more than half the number of hydrogen atoms on the adamantyl group are substituted by fluorine atoms; R¹, R², R³, R⁵, R⁶ and R⁷ are independently one selected from the group consisting of a hydrogen atom,

lower alkyl group, fluorine atom, and fluorinated lower alkyl group; l is an integer of 0 to 3; and R^4 is a hydroxyl group;

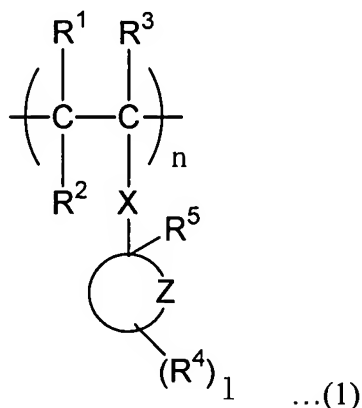
and having a transparency to light of 157 nanometer wavelength represented by an adsorption coefficient equal to or less than $3.0 \mu\text{m}^{-1}$.

68. (Previously Presented) The resist composition according to claim 67, comprising the polymer compound as a base polymer.

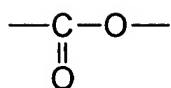
69. (Previously Presented) The resist composition according to claim 67, comprising the polymer compound as a dissolution inhibitor agent.

70. (Previously Presented) A resist dissolution inhibitor agent comprising a polymer compound having a monomeric unit derived from acrylic ester or methacrylic ester having a polycyclic group at a side chain, wherein all hydrogen atoms on the ring of the polycyclic group are fluorinated and said polymer compound has transparency to light of 157 nanometer wavelength, represented by an adsorption coefficient equal to or less than $3.0 \mu\text{m}^{-1}$.

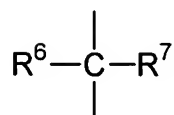
71. (Currently Amended) A resist dissolution inhibitor agent comprising a polymer compound having a monomeric unit represented by general formula (1)



where n is an integer; X is an ester group of carboxylic acid,



ether group (-O-), -CH₂-O-, or an alkylidene group,



Z enclosed by a circle is ~~a highly fluorinated~~ an adamantyl group wherein more than half the number of hydrogen atoms on the adamantyl group are substituted by fluorine atoms; R¹, R², R³, R⁵, R⁶ and R⁷ are independently one selected from the group consisting of a hydrogen atom, lower alkyl group, fluorine atom, and fluorinated lower alkyl group; l is an integer of 0 to 3; and R⁴ is a hydroxyl group,

and having a transparency to light of 157 nanometer wavelength represented by an adsorption coefficient equal to or less than 3.0 μm⁻¹.